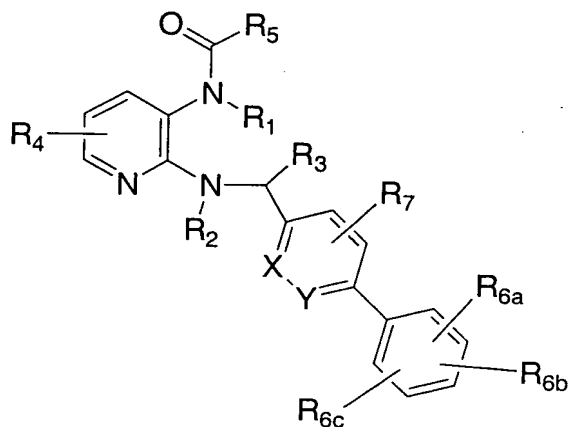


WHAT IS CLAIMED IS:

1. A compound of formula I:



5

I

wherein

X and Y are each CH, or one is CH and the other is N;

R₁ and R₂ are independently selected from

10

- (1) hydrogen and
- (2) C₁₋₄ alkyl;

R₃ is selected from

- (1) hydrogen, and
- (2) C₁₋₄ alkyl optionally substituted with 1 to 4 groups selected

15 from halogen, CO₂R^a, OR^a, COR^a and cyano;

R₄ is selected from

- (1) hydrogen,
- (2) nitro,
- (3) halogen,
- 20 (4) (CH₂)_nOR^a,
- (5) (CH₂)_nCO₂R^a,
- (6) (CH₂)_nCN,
- (7) (CH₂)_nNR^bR^c,
- (8) (CH₂)_nNHC(O)CH₂CN,
- 25 (9) CONR^bR^c, and

- (10) C₁₋₄ alkyl;
- R₅ is selected from
- (1) C₃₋₆ cycloalkyl substituted with 1 or 2 fluoro,
 - (2) CHF₂,
 - 5 (3) CH₂CF₃,
 - (4) CF₂CF₃, and
 - (5) CH₂CH₂CF₃;
- R_{6a} is selected from
- (1) C₁₋₈ alkyl, optionally substituted with 1 to 5 groups
 - 10 independently selected from halogen, nitro, cyano, COR^a, SO₂R^d, CO₂R^a, NR^bR^c,
NR^bC(O)R^a, NHSO₂R^d, OR^a, OC(O)R^a, CONR^bR^c,
 - (2) C₃₋₈ cycloalkyl,
 - (3) C₂₋₈ alkenyl optionally substituted with CO₂R^a;
 - (4) halogen,
 - 15 (5) OCF₃,
 - (6) cyano,
 - (7) nitro,
 - (8) NR^bR^c,
 - (9) NR^bC(O)R^a,
 - 20 (10) NR^bCO₂R^{a'}, wherein R^{a'} is a non-hydrogen group selected
from R^a,
 - (11) CO₂R^a,
 - (12) COR^a,
 - (13) C(O)NR^bR^c,
 - 25 (14) C(O)NHO R^a,
 - (15) OR^a,
 - (16) OC(O)R^a,
 - (17) S(O)_nR^{a'}, wherein R^{a'} is a non-hydrogen group selected from
R^a,
 - 30 (18) SO₂NH R^c,
 - (19) NHSO₂R^d,
 - (20) C(=NOR^a)NR^bR^c,
 - (21) C(=NOR^a)R^a, and

(22) substituted or unsubstituted heterocycle where the heterocycle is selected from oxadiazole, tetrazole, triazole, pyrazole, oxazole, isoxazole, thiazole, 4,5-dihydro-oxazole, 4,5-dihydro-1,2,4-oxadiazol-5-one, and wherein said substituent is 1 to 3 groups independently selected from C₁₋₄alkyl optionally substituted with 1 to 5 halogen atoms, OR^a, or OC(O)R^a;
 5 R_{6b} and R_{6c} are independently selected from

- (1) hydrogen, and
- (2) a group from R_{6a}; with the proviso that not more than one of R_{6a}, R_{6b}, and R_{6c} is a heterocycle;

10 R₇ is selected from

- (1) hydrogen,
- (2) cyano,
- (3) nitro,
- (4) halogen,
- 15 (5) OR^a,
- (6) CO₂R^a,
- (7) CONR^bR^c, and
- (8) C₁₋₄ alkyl;

R^a is selected from

- 20 (1) hydrogen,
- (2) C₁₋₄ alkyl,
- (3) C₃₋₆ cycloalkyl,
- (4) aryl, and
- (5) aryl-C₁₋₄ alkyl;

25 R^b and R^c are independently selected from

- (1) hydrogen,
- (2) C₁₋₄ alkyl optionally substituted with OR^a,
- (3) C₃₋₆ cycloalkyl,
- (4) aryl, and
- 30 (5) aryl-C₁₋₄ alkyl; or

R^b and R^c together with the nitrogen atom to which they are attached form a 5- or 6-membered ring optionally containing a heteroatom selected from NR^a, O and S;

R^d is selected from

- (1) C₁₋₄ alkyl, optionally substituted with 1 to 3 halogen atoms,
- 35 (2) aryl,

(3) aryl-C₁₋₄ alkyl, and

(4) NR^bR^c;

n is 0, 1 or 2

a pharmaceutically acceptable salt thereof.

5

2. A compound of Claim 1 wherein R₃ is hydrogen.

3. A compound of Claim 1 wherein R₃ is C₁₋₄ alkyl.

10

4. A compound of Claim 1 wherein R₄ is H or a 4-substituent.

5. A compound of Claim 1 wherein R₄ is H or a 4-substituent selected from C₁₋₄ alkyl and halogen.

15

6. A compound of Claim 1 wherein R₄ is 4-chloro or 4-methyl.

7. A compound of Claim 1 wherein R₅ is CH₂CF₃.

20

8. A compound of Claim 1 wherein X and Y are both CH.

9. A compound of Claim 1 wherein one of X and Y is CH and the other is N.

10. A compound of Claim 1 wherein R_{6a} is a 2- (or ortho-) substituent selected from CO₂R^a, CONR^bR^c, CONHOR^a, C₁₋₈ alkyl substituted with 1 to 5 halogen atoms, cyano, SO₂NHR^c, halogen, trifluoromethoxy, 1- and 2-methyltetrazol-5-yl, 1,2,4-oxadiazolyl, 3- and 5-methyl-1,2,4-oxadiazolyl, 3- and 5-trifluoromethyl-1,2,4-oxadiazolyl, 3-pyrazolyl, 1,2,4-triazolyl, 5-methyl-1,2,4-triazol-3-yl, and 3-methyl-1,2,4-triazol-5-yl.

30

11. A compound of Claim 10 wherein R_{6a} is selected from methyl carboxylate, cyano, N-methylcarboxamido and N-methylsulfonamido.

12. A compound of Claim 10 wherein R_{6a} is 1- or 2-methyltetrazolyl.

13. A compound of Claim 10 wherein R_{6a} is 1,2,4-oxadiazolyl, 5(4H)-oxo-1,2,4-oxadiazolyl, 4-methyl-5(4H)-oxo-1,2,4-oxadiazolyl, or 3- or 5-methyl-1,2,4-oxadiazolyl.

14. A compound of Claim 10 wherein R_{6a} is difluoromethyl, trifluoromethyl, trifluoromethoxy, N-methoxycarboxamide, Cl, F or Br.

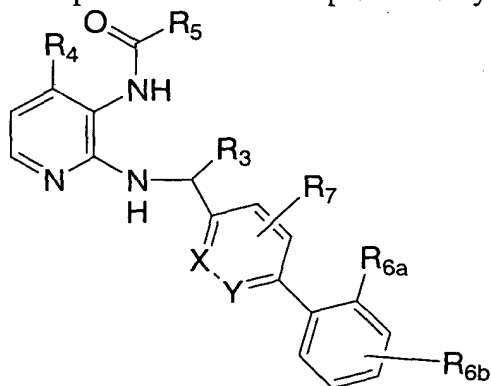
15. A compound of Claim 10 wherein R_{6a} is 1,2,4-triazolyl, isoxazolyl or pyrazolyl.

16. A compound of Claim 1 wherein R_{6b} is selected from hydrogen, C₁₋₈ alkyl optionally substituted with OH or 1 to 5 halogen atoms, C₂₋₆ alkenyl, NR^bR^c, OR^a, COR^a, CO₂R^a, NHCOR^a, NHSO₂R^d and halogen, and R_{6c} is hydrogen.

17. A compound of Claim 16 wherein R_{6b} is hydrogen, halogen, CO₂R^a, COR^a, or C₁₋₄alkyl optionally substituted with hydroxy.

18. A compound of Claim 16 wherein R_{6b} is hydrogen, fluoro, chloro, or methyl.

19. A compound of Claim 1 represented by formula Ia:



Ia

wherein R₃, R₄, R₅, R_{6a}, R_{6b}, R₇, X and Y are as defined in Claim 1.

20. A compound of Claim 19 wherein at least one of R₃, R₄ and R_{6b} is non-hydrogen.

5

21. A compound of Claim 19 wherein at least two of R₃, R₄ and R_{6b} are non-hydrogen.

22. A compound of Claim 20 wherein R_{6a} is selected from
 10 CO₂R^a, CONR^bR^c, CONHOR^a, C₁₋₈ alkyl substituted with 1 to 5 halogen atoms, cyano, SO₂NHRC, halogen, trifluoromethoxy, 1- and 2-methyltetrazol-5-yl, 1,2,4-oxadiazolyl, 3- and 5-methyl-1,2,4-oxadiazolyl, 3- and 5-trifluoromethyl-1,2,4-oxadiazolyl, 3-pyrazolyl, 1,2,4-triazolyl, 5-methyl-1,2,4-triazol-3-yl, and 3-methyl-1,2,4-triazol-5-yl.

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23. A compound of Claim 21 wherein R_{6a} is selected from
 CO₂R^a, CONR^bR^c, CONHOR^a, C₁₋₈ alkyl substituted with 1 to 5 halogen atoms, cyano, SO₂NHRC, halogen, trifluoromethoxy, 1- and 2-methyltetrazol-5-yl, 1,2,4-oxadiazolyl, 3- and 5-methyl-1,2,4-oxadiazolyl, 3- and 5-trifluoromethyl-1,2,4-oxadiazolyl, 3-pyrazolyl, 1,2,4-triazolyl, 5-methyl-1,2,4-triazol-3-yl, and 3-methyl-1,2,4-triazol-5-yl.

20

24. A compound of Claim 19 wherein R_{6b} is hydrogen, or a 3-, 5- or 6-substituent selected from C₁₋₄alkyl and halogen.

25

25. A compound of Claim 19 wherein

R₃ is H or C₁₋₄ alkyl;

R₄ is H, C₁₋₄ alkyl or halogen;

R₅ is CH₂CF₃;

30 R_{6a} is selected from CO₂R^a, CONR^bR^c, CONHOR^a, C₁₋₈ alkyl substituted with 1 to 5 halogen atoms, cyano, SO₂NHRC, halogen, trifluoromethoxy, 1- and 2-methyltetrazol-5-yl, 1,2,4-oxadiazolyl, 3- and 5-methyl-1,2,4-oxadiazolyl, 3- and 5-trifluoromethyl-1,2,4-oxadiazolyl, 3-pyrazolyl, 1,2,4-triazolyl, 5-methyl-1,2,4-triazol-3-yl, and 3-methyl-1,2,4-triazol-5-yl;

R_{6b} is selected from hydrogen, C₁₋₈ alkyl optionally substituted with OH or 1 to 5 halogen atoms, C₂₋₆ alkenyl, NR^bR^c, OR^a, COR^a, CO₂R^a, NHCOR^a, NHSO₂R^d and halogen; and

R_{6c} is hydrogen; with the proviso that at least one of R₃, R₄ and R_{6b} is non-hydrogen.

26. A compound of Claim 26 wherein R_{6a} is selected from CO₂R^a, CONR^bR^c, SO₂NHR^c, and cyano.

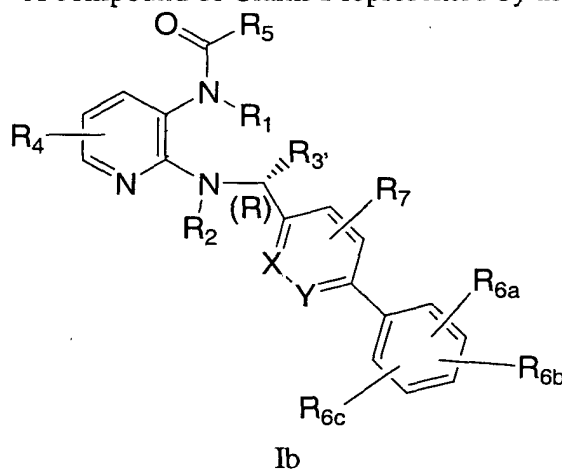
27. A compound of Claim 26 wherein R_{6a} is selected from 1- or 2-methyltetrazolyl.

28. A compound of Claim 26 wherein R_{6a} is 1,2,4-oxadiazolyl, 5(4H)-oxo-1,2,4-oxadiazolyl, 4-methyl-5(4H)-oxo-1,2,4-oxadiazolyl, or 3- or 5-methyl-1,2,4-oxadiazolyl.

29. A compound of Claim 26 wherein R_{6a} is difluoromethyl, trifluoromethyl, trifluoromethoxy, N-methoxycarboxamide, Cl, F or Br.

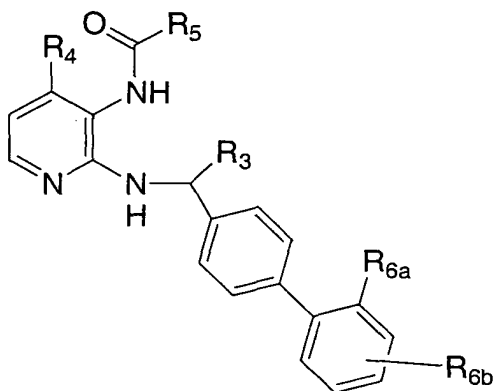
30. A compound of Claim 26 wherein R_{6a} is 1,2,4-triazolyl, isoxazolyl or pyrazolyl.

31. A compound of Claim 1 represented by the formula Ib:

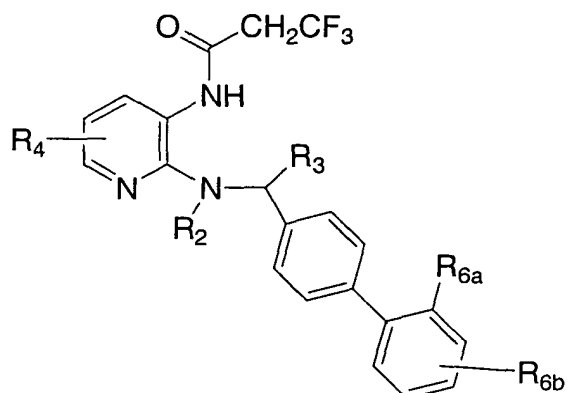


wherein all the variables are as defined in Claim 1, except R₃' is C₁₋₄ alkyl optionally substituted with 1 to 4 groups selected from halogen, CO₂R^a, OR^a, COR^a and cyano.

5 32. A compound selected from:



R _{6a}	R _{6b}	R ₃	R ₄	R ₅
CO ₂ Me	5'-Me	Me(R)	Me	2,2-di-F-cPr
CO ₂ Me	5'-Cl	Me(R)	Me	CHF ₂
CO ₂ Me	5'-Me	Me(R)	Me	CHF ₂
CN	5'-Me	Me(R)	Me	CHF ₂
CO ₂ Me	H	H	H	CHF ₂
CO ₂ Me	H	H	Me	CF ₂ CF ₃
CONHMe	H	H	Me	CF ₂ CF ₃
CO ₂ Me	H	H	H	(CH ₂) ₂ CF ₃



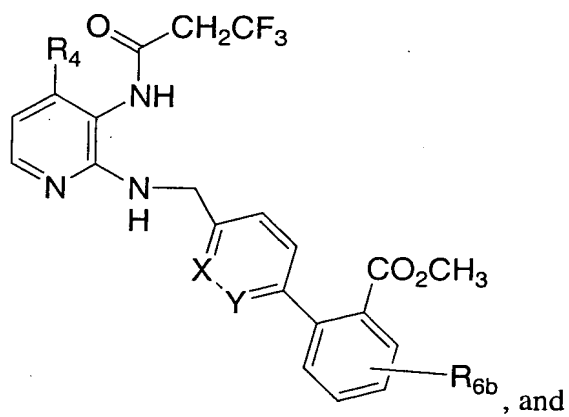
R _{6a}	R _{6b}	R ₃	R ₄
R₂ is H unless otherwise specified			
3-methyl-1,2,4-oxadiazolyl	5'-F	Me(R)	4-Cl
CONHMe	3'-F	Me(R)	4-Cl
3-methyl-1,2,4-oxadiazolyl	3'-F	H	4-Me
CO ₂ Me	3'-F	H	4-Me
CO ₂ Me	3'-Cl	Me(R)	4-Me
CO ₂ Me	3'-Cl	H	4-Me
CN	3'-F	Me(R)	4-Me
CO ₂ Me	3'-F	Me(R)	4-Me
3-methyl-1,2,4-oxadiazolyl	3'-F	Me(R)	4-Cl
CO ₂ Me	3'-F	Me(R)	4-Cl
5-methyl-1,2,4-oxadiazolyl	3'-F	Me(R)	4-Cl
2-methyl-2H-tetrazol-5-yl	3'-F	Me(R)	4-Me
CO ₂ Me	3'-Cl	Me(R)	4-Cl
CO ₂ Me	5'-Me	Me(R)	4-Cl
2-methyl-2H-tetrazol-5-yl	3'-F	Me(R)	4-Cl
CO ₂ Me	3'-Cl	Me(R)	H
CONHMe	3'-F	Me(R)	4-Me
CO ₂ Me	6'-Me	Me(R)	4-Cl
CO ₂ Me	3'-Cl	H	4-Cl
CO ₂ Me	5'-F	Me(R)	4-Cl
5-methyl-1,2,4-oxadiazolyl	5'-Me	H	4-Me
3-methyl-1,2,4-oxadiazolyl	5'-Me	H	4-Me

R6a	R6b	R3	R4
CO ₂ Me	5'-Me	Me(R)	4-Me
CO ₂ Me	5'-Cl	Me(R)	4-Cl
CF ₃	3'-F	H	4-Me
CO ₂ Me	3'-F	Me(R)	H
CO ₂ Me	6'-F	Me(R)	4-Cl
CF ₃	3'-F	Me(R)	4-Cl
CO ₂ Me	H	Me(R)	4-Me
CO ₂ Me	6'-Cl	Me(R)	4-Cl
CONHOMe	H	Me(R)	4-Me
SO ₂ NHMe	H	Me(R)	4-Me
CONHOMe	H	H	4-Me
CHF ₂	3'-Cl	H	4-Me
Cl	3'-F	Me(R)	4-Me
CO ₂ Me	H	Me(R)	4-Cl
5-methyl-1,2,4-oxadiazolyl	H	Me(R)	4-Cl
3-methyl-1,2,4-oxadiazolyl	H	H	4-Me
CN	3'-F	H	4-Cl
5-methyl-1,2,4-oxadiazolyl	H	Me(R)	4-Me
3-methyl-1,2,4-oxadiazolyl	H	H	H
Cl	3'-Cl	Me(R)	4-Me
CN	5'-Me	Me(R)	4-Me
Cl	3'-F	Me(R)	4-Cl
CF ₃	3'-F	H	4-Me
CF ₃	H	Me(R)	4-Me
5-methyl-1,2,4-oxadiazolyl	5'-Me	Me(R)	4-Me
Cl	3'-F	H	4-Me
1-methyl-1H-tetrazol-5-yl	3'-F	Me(R)	4-Cl
3-methyl-1,2,4-oxadiazolyl	H	Me	4-Me
CF ₃	3'-F	Me(R)	H
CONHMe	H	Me(R)	4-Me
3-methyl-1,2,4-oxadiazolyl	5'-Cl	Me(R)	4-Cl
CO ₂ Me	H	H	4-Me

R6a	R6b	R3	R4
SO ₂ NHMe	H	H	4-Me
CO ₂ Me	H	H	4-Cl
OCF ₃	H	Me(R)	4-Me
1,2,4-oxadiazol-5-yl	H	H	H
CN	H	Me(R)	4-Me
CHF ₂	H	H	4-Me
CONHMe	H	H	4-Me
CO ₂ Me	H	H	H
Br	H	Me(R)	4-Me
F	3'-F	Me(R)	4-Me
CO ₂ Me	3'-Me	H	4-Me
CO ₂ Me	6'-CH ₂ OH	H	4-Me
Cl	3'-F	Me(R)	H
CONHOMe	6'-Me	H	4-Me
isoxazol-5-yl	H	H	H
Cl	6'-Me	Me(R)	4-Me
CO ₂ Me	H	Et	4-Me
3-methyl-1,2,4-oxadiazolyl	6'-Me	Me(R)	4-Me
1H-1,2,4-triazol-5-yl	H	H	4-Me
CO ₂ Me	H	H	4-(CH ₂) ₂ NHCOCH ₂ CN
CO ₂ Me	6'-CO ₂ Me	H	4-Me
4-methyl-5(4H)-oxo-1,2,4-oxadiazol-3-yl	H	H	H
CO ₂ Me	H	H	4-CH ₂ CO ₂ Me
Cl	5'-Cl	Me(R)	4-Me
CO ₂ Me	H	H	5-F
3-methyl-1,2,4-oxadiazolyl	6'-Me	H	4-Me
CO ₂ tBu	H	H	4-Me
CO ₂ Me	H	H	4-Et
F	H	Me(R)	4-Me
1H-pyrazol-3-yl	H	H	H
CO ₂ Me	H	H	4-CH ₂ CN

R _{6a}	R _{6b}	R ₃	R ₄
CO ₂ Me	6'-CHO	H	4-Me
CO ₂ Me	H	H	5-Me
5-(CF ₃)-1,2,4-oxadiazolyl	H	H	H
CO ₂ Me	H	H	5-Cl
CO ₂ Me	H	H	4-(CH ₂) ₂ NH ₂
5(4H)-oxo-1,2,4-oxadiazol-3-yl	H	H	H
F	4'-F	Me(R)	4-Me
CO ₂ Me	H	H	5-Br
3-methyl-1,2,4-oxadiazolyl*	H	H	H
CO ₂ Me	H	H	6-Me
CO ₂ Me	H	H	6-Cl
H	3'-F	Me(R)	4-Me

* R₂ is CH₃



R _{6b}	R ₄	X	Y
3'-F	Me	C(F)	CH
3'-F	Me	CH	C(F)
H	Me	N	CH
H	H	C(Me)	H
H	H	H	C(Me)

33. A pharmaceutical composition comprising a compound according to Claim 1 or a pharmaceutically acceptable salt thereof; and a pharmaceutically acceptable carrier.

5 34. A method of treatment or prevention of pain and inflammation comprising a step of administering, to a subject in need of such treatment or prevention, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt thereof.

10 35. A method of treatment of osteoarthritis, repetitive motion pain, dental pain, cancer pain, myofascial pain, muscular injury pain, fibromyalgia pain, perioperative pain comprising a step of administering, to a subject in need of such treatment, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt thereof.

15 36. A method of treatment or prevention of inflammatory pain caused by chronic obstructive pulmonary disease, asthma, inflammatory bowel disease, rhinitis, pancreatitis, cystitis (interstitial cystitis), uveitis, inflammatory skin disorders, rheumatoid arthritis, edema resulting from trauma associated with burns, sprains or
20 fracture, postsurgical intervention, osteoarthritis, rheumatic disease, teno-synovitis, or gout comprising a step of administering, to a subject in need of such treatment or prevention, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt thereof.

25 37. A method of treatment or prevention of pain associated with angina, menstruation or cancer comprising a step of administering, to a subject in need of such treatment or prevention, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt thereof.

30 38. A method of treatment of diabetic vasculopathy, post capillary resistance, diabetic symptoms associated with insulinitis, psoriasis, eczema, spasms of the gastrointestinal tract or uterus, Crohn's disease, ulcerative colitis, or pancreatitis comprising a step of administering, to a subject in need of such treatment, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt
35 thereof.

39. A method of treatment or prevention of pain caused by pneumoconiosis, including aluminosis, anthracosis, asbestosis, chalicosis, ptilosis, siderosis, silicosis, tabacosis, byssinosis, adult respiratory distress syndrome,
- 5 bronchitis, allergic rhinitis, vasomotor rhinitis, liver disease, multiple sclerosis, atherosclerosis, Alzheimer's disease, septic shock, cerebral edema, headache, migraine, closed head trauma, irritable bowel syndrome, or nephritis comprising a step of administering, to a subject in need of such treatment or prevention of pain, an effective amount of a compound according to Claim 1 or a pharmaceutically
- 10 acceptable salt thereof.